

UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

CHARLES GUTHRIE, EDMUND SANDBERG,  
DONALD WILSON, GREGORY PRIOR, and DAVID SMOLER  
Junior Party  
(Application 09/818,092),

v.

FREDERICK M. ESPIAU, CHANDRASHEKHAR J. JOSHI,  
and YIAN CHANG  
Senior Party  
(Patent 6,737,809).

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Patent Interference No. 105,393 (SCM)  
(Technology Center 2800)

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*Before LEE, MEDLEY, and MOORE, Administrative Patent Judges.*

*MEDLEY, Administrative Patent Judge.*

**Decision – Priority – Bd.R. 125(a)**

**A. Statement of the Case**

Guthrie and Espiau each moved for judgment on the basis of priority. Both parties filed motions to exclude evidence from the record. Oral argument was held 7 January 2008<sup>1</sup>.

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<sup>1</sup> The transcript was entered into the record 7 February 2008 (Paper 254).

For the reasons that follow, we deny Guthrie's priority motion and dismiss as moot Espiau's priority motion. The parties' respective motions to exclude evidence are dismissed.

**B. Issue**

The issue before us is has Guthrie met its burden to sufficiently demonstrate priority of invention and/or derivation of invention?

For the reasons that follow, Guthrie has not met its burden to sufficiently demonstrate priority of invention and/or derivation of invention.

**C. Findings of fact<sup>2</sup>**

1. Guthrie is involved on the basis of application 09/818,092, filed 26 March 2001.
2. Espiau is involved on the basis of patent 6,737,809, granted 18 May 2004, based on application 09/809,718, filed 15 March 2001.
3. At the time of declaration, Guthrie was accorded benefit of several provisional applications (Paper 1 at 4).
4. During the course of events, Espiau Motion 3, to deny Guthrie benefit of all of the provisional applications was granted (Paper 83 at 38-43; rehearing denied Paper 89; Redecoration Paper 255).
5. Thus, for purposes of the priority phase, Guthrie's earliest constructive reduction to practice date is 26 March 2001, the filing date of Guthrie's involved application.
6. Espiau has been accorded benefit for the purpose of priority of application 60/222,028, filed 31 July 2000.

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<sup>2</sup> The following findings of fact as well as those contained elsewhere in this opinion are supported by a preponderance of the evidence.

7. Guthrie real party in interest is Ceravision Limited (Paper 10).
8. Espiau real party in interest is Luxim Corporation (Paper 7).
9. The count is claim 109 of Guthrie application 09/818,092 or claim 1 of Espiau patent 6,737,809 or claim 129 of Guthrie application 09/818,092 or claim 32 of Espiau patent 6,737,809 (Paper 1).

10. Guthrie claim 109 is as follows:

A lamp comprising:

- (a) a waveguide having a body comprising a ceramic dielectric material of a preselected shape and preselected dimensions, the body having a first side determined by a first waveguide outer surface;
- (b) a first feed positioned within and in intimate contact with the waveguide body, adapted to couple energy into the body from a source having an output and operating at a preselected frequency and intensity, the feed connected to the source output, said frequency and intensity and said body shape and dimensions selected such that the body resonates in at least one resonant mode having at least one electric field maximum;
- (c) an enclosed first cavity depending from said first surface into the waveguide body; and
- (d) a first bulb positioned in the cavity at a location corresponding to an electric field maximum during operation, the bulb containing a gas-fill which when receiving energy from the resonating waveguide body forms a light-emitting plasma.

11. Espiau claim 1 is as follows:

A lamp comprising:

(a) a waveguide having a body comprising a ceramic dielectric material of a preselected shape and preselected dimensions, the body having a first side determined by a first waveguide outer surface;

(b) a first microwave feed positioned within and in intimate contact with the waveguide body, adapted to couple microwave energy into the body from a microwave source having an output and an input and operating within a frequency range from about 0.5 to about 30 GHz at a preselected frequency and intensity, the feed connected to the source output, said frequency and intensity and said body shape and dimensions selected such that the body resonates in at least one resonant mode having at least one electric field maximum;

(c) an enclosed first cavity depending from said first surface into the waveguide body; and

(d) a first bulb positioned in the cavity at a location corresponding to an electric field maximum during operation, the bulb containing a gas-fill which when receiving microwave energy from the resonating waveguide body forms a light-emitting plasma.

12. Guthrie claim 129 is as follows:

A method for producing light comprising the steps of:

(a) coupling energy characterized by a frequency and intensity into a waveguide having a body comprising a ceramic dielectric material of a preselected shape and preselected dimensions, the body having a side determined by an outer waveguide surface and a cavity depending from said surface into the body, said frequency and intensity and said body shape dimensions selected such that the body resonates in at least one resonant mode having at least one electric field maximum;

(b) directing resonant energy into an envelope determined by the cavity and a window, the envelope containing a gas-fill; and

(c) creating a plasma by interacting the resonant energy with the gas-fill, thereby causing emission of light.

13. Espiau claim 32 is as follows:

A method for producing light comprising the steps of:

(a) coupling microwave energy characterized by a frequency and intensity into a waveguide having a body comprising a ceramic dielectric material of a preselected shape and preselected dimensions, the body having a side determined by an outer waveguide surface and a cavity depending from said surface into the body, said frequency and intensity and said body shape and dimensions selected such that the body resonates in at least one resonant mode having at least one electric field maximum;

(b) directing resonant microwave energy into an envelope determined by the cavity and a window, the envelope containing a gas-fill; and

(c) creating a plasma by interacting the resonant energy with the gas-fill, thereby causing emission of light.

14. The claims of the parties are:

Guthrie: 109-131

Espiau: 1-35

15. The claims of the parties which correspond to the count are:

Guthrie: 109-131

Espiau: 1-35

16. The claims of the parties which do not correspond to Count 1, and therefore are not involved in the interference, are:

Guthrie: none

Espiau: none

Interpretation of the count

17. In the Decision on Rehearing, the Board expressly rejected Guthrie's argument that the count only requires that the devices be capable of operating in a resonant mode (Paper 89 at 8:18-20 to 9:2).

18. The Board reaffirmed what was explained in the Decision on Motions in denying Guthrie benefit of its provisional applications, by reiterating that the count requires the claimed devices "to be in a state of at least one resonant mode" and to possess "more than an ability to operate in at least one resonant mode" (Paper 89 at 9:28 to 10:1).

19. Thus, the parties' proof of an actual reduction to practice requires a showing that the device reduced to practice operated in at least one resonant mode, e.g., that the device tested actually resonated.

Reduction to practice

20. Guthrie alleges that it actually reduced the invention to practice during the week of 17 July 2000 (Paper 109 at 16).

21. Guthrie relies on the testimonies of Wilson (Ex. 2181), Nunes (Ex. 2199), Bennett (Ex. 2186), Guthrie (Ex. 2180), and Gandhi (Ex. 2164) to describe what was constructed and/or tested.

22. Wilson testified that in early July 2000, he contacted Ceramic Tech., Inc. to make a few samples of a rectangular half-wavelength waveguide (Ex. 2181 ¶ 51).

23. Wilson further testified that Ceramic Tech. made a small number of half wavelength waveguides using "substantially the same dimensions" set forth on page 2 of Exhibit 2137 (Ex. 2181 ¶ 52).

24. Wilson further testified that the parts made did not have a layer of

metallization on them and that he and Joe Bennett coated the parts with silver paint (Id.).

25. Wilson testified that the painted parts looked like the part shown in Exhibit 2041, although the metal layer was not as precise as the one shown in that Exhibit (Id.).

26. Gandhi, a sales manager at Ceramic Tech., Inc. recalls that “the ceramic parts that CeramicTech machined in the first few weeks of July 2000 looked substantially like the part shown in Exhibit 2041” (Ex. 2164 at ¶ 1, 3 and 4).

27. Gandhi explained that the “only difference that I see is that the part in Exhibit 2041 appears to have a coating, whereas the parts machined by Ceramic Tech were bare alumina” (Id. ¶ 4).

28. Gandhi also testified that the overall dimension of the parts shown in the sketch labeled #2 (the second page of Ex. 2137) and a drawing labeled “CTS010” (Ex. 2048) are consistent with his recollection of the size of the part that Ceramic Tech made for DRI in July 2000 (Id. ¶ 5).

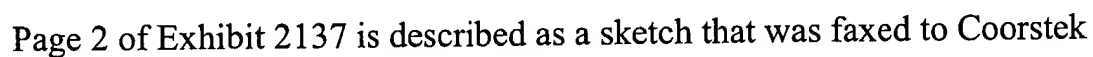
29. Gandhi testified that Wilson came by Ceramic Tech’s office with a drawing similar to that shown in Exhibit 2137 (sketch #2), but with not so many variations (Id. ¶ 6).

30. Bennett testified that Wilson had a small number of waveguides “substantially as shown in Exhibit 2137 (sketch #2)” made in early July 2000 (Ex. 2186 ¶ 8).

31. Nunes testified that he witnessed the lighting of a plasma lamp “like that shown in Exhibit 2041” during the week of about 17 July 2000 (Ex. 2199 ¶ 3).

32. Nunes testified that the dimensions for the part shown in Exhibit 2048 are “consistent with my recollection of the size of the part that I saw tested in July

33. The second page of Exhibit 2137 is said to be a sketch that was submitted to another company (Coorstek) in connection with a quotation (Ex. 2181 ¶ 52 and Paper 109 GFF<sup>3</sup> 168) and is as follows:



34. Exhibit 2041 is said to be a photograph of a half wavelength waveguide, a waveguide that is said to have been delivered to Guthrie after the critical July 30, 2000 date (Ex. 2181, ¶ 60) and is as follows:

<sup>3</sup> GFF denotes Guthrie finding of fact numbered in Guthrie's priority motion.



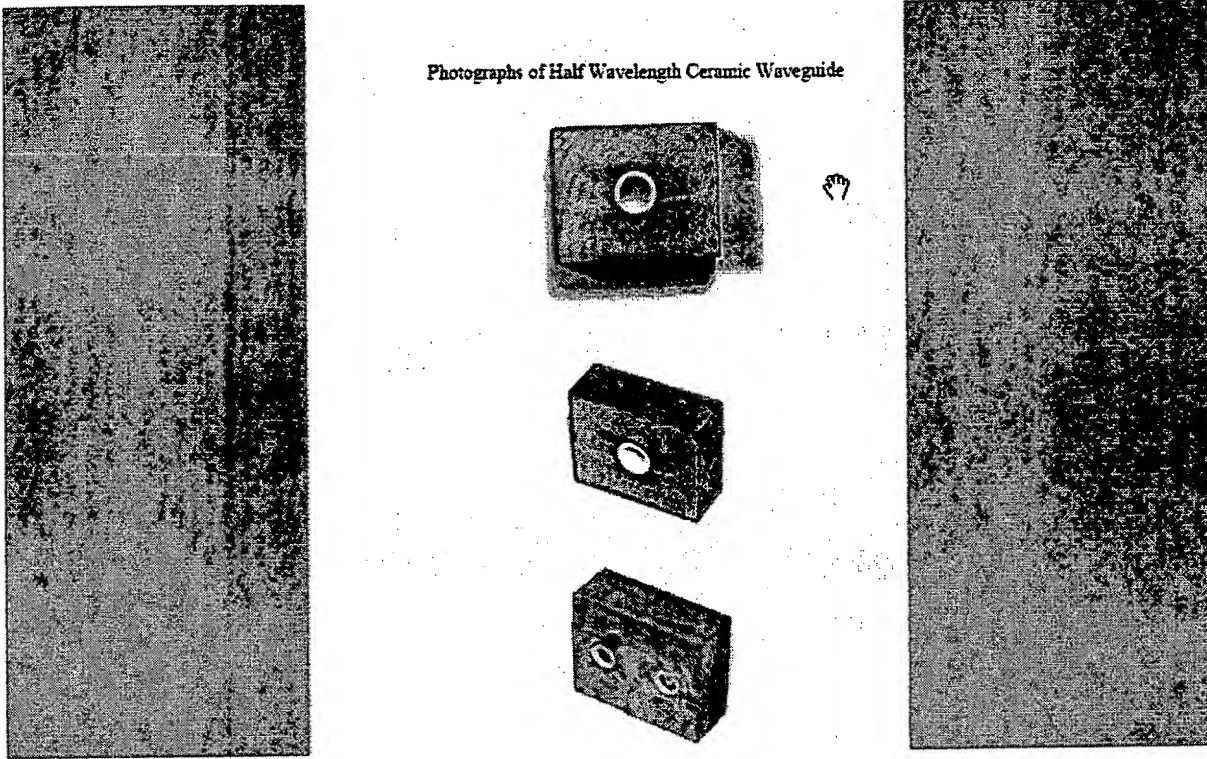


Exhibit 2041 shows a photograph of a half wavelength ceramic waveguide

35. Exhibit 2048 is said to be a drawing made by C. Guthrie of a half-wavelength resonator ceramic part (Ex. 2180 ¶ 33) and is as follows:

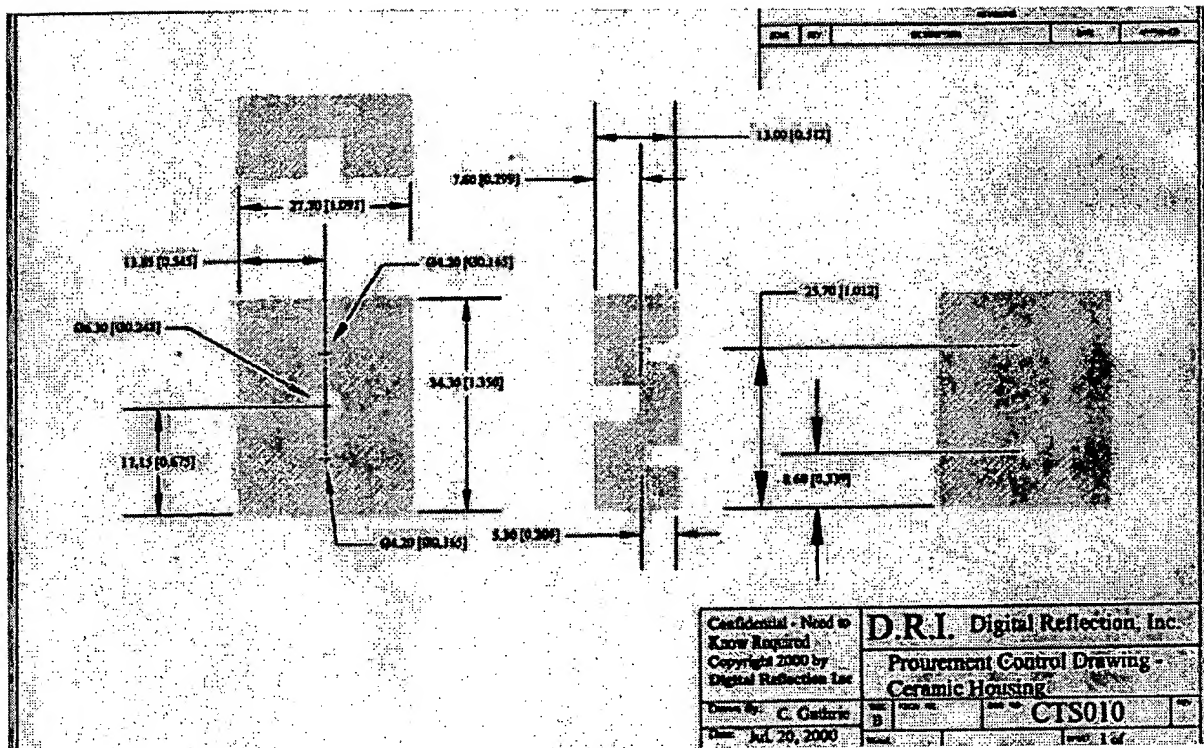


Exhibit 2048 is described as a drawing made by C. Guthrie of a ceramic part

36. Dr. Gupta testified that based on his inspection of, and calculations for “the Sample” that is shown in Exhibit 2041 and sketch 2 of 2137, that the device depicted in “the Sample” constitutes a physical embodiment of the invention of the Count (Ex. 2182 ¶ 34).

37. Specifically, Gupta testified as follows:

31. In addition to the above, I have reviewed page 2 of Exhibit 2137, inspected the half-wavelength waveguide depicted in Exhibit 2041 (“the Sample”), and reviewed the declarations of Joe Bennett (Exhibit 2186) and Dennis Nunes (Exhibit 2199). The Sample is a physical embodiment of the device depicted on page 2 of Exhibit 2137, and is described by Messrs. Bennett and Nunes as substantially the same as that operated during the week of July 17, 2000. The Sample comprises a rectangular block of alumina having a metal layer disposed on its outer surface to form six conducting walls. I measured the outer

dimensions of this device to be approximately as follows: width  $w = 2.75$  cm, height  $h = 1.3$  cm, and length  $d = 3.4$  cm. One of the faces, having dimensions  $w$  by  $d$ , can be considered the first face, and is shown in the topmost photograph of Exhibit 2041. There is an aperture located exactly in the middle of the first face, through which the ceramic material in the interior is visible. On the opposite face, which also has dimensions  $w$  by  $d$ , there are two smaller apertures filled with solder, which serve as probes that extend into the resonator. The two smaller orifices are disposed 1.7 cm from each other, and approximately 0.85 cm from either end. This opposite face is shown in the bottommost photograph of Exhibit 2041.

32. One of ordinary skill in the art would immediately recognize that the Sample is a rectangular resonator, as it is a section of rectangular waveguide of cross-section  $w$  by  $h$ , and having a length  $d$ , that is shorted at both ends by conducting walls that are a distance of  $d$  apart. One of ordinary skill in the art also would recognize and understand that the Sample is the classical textbook variety of resonator, discussed in numerous undergraduate textbooks on electromagnetic fields and microwave engineering. As described by Mr. Wilson in Exhibit 2181, the recess in the center of the first face is sufficiently large to accommodate a load, such as a bulb, while the two ports on the reverse side permit the insertion of probes that can be coupled to an RF source.

33. I understand that the Sample is referred to as a “half wavelength” waveguide by the Guthrie inventors because, unlike the ceramic waveguide resonator described on Page A19 of Exhibit 2146 and in Exhibit 2147, in which the resonator length was selected as corresponding to the “full” waveguide wavelength at the nominal resonant frequency (the  $TE_{102}$  mode), the Sample was designed to resonate at the dominant mode, i.e., the lowest resonant frequency. As is apparent from Figure 6.6 (reproduced in paragraph 15 above), the dominant mode corresponds to having a resonator length equal to one-half wavelength of the waveguide wavelength at the resonant frequency (the  $TE_{101}$  mode). In this resonant mode, the electric field maximum is located at the center of the rectangular block.

34. Using the Sample dimensions discussed above ( $d = 3.4$  cm,  $w = 2.75$  cm), a value of the dielectric constant of 9.2, and the recast textbook formula set forth in paragraph 28 above, I compute a resonant frequency of 2.3 GHz, readily achievable with commercially available variable frequency RF sources. Based on my inspection of, and calculations for the Sample shown in Exhibit 2041, I have determined that, except for the missing quartz bulb described by Mr. Wilson in Exhibit 2181, ¶ 52, the device depicted in Exhibit 2041 (and the corresponding part operated during the week of July 17, 2000), unequivocally constitutes a physical embodiment of the invention of the Count. The claim chart set forth below compares the device described by Messrs. Bennett and Nunes as having been operated during the week of July 17, 2000, of which Exhibit 2041 is representative, to the Count.

38. Espiau's involved specification describes that in order for the ceramic waveguide to resonate and maintain resonance, the waveguide must be of a particular dimension in coordination with the dielectric constant of the material used and the particular frequency that is applied to the waveguide:

The actual dimensions of the waveguide will vary depending upon the microwave operating frequency and the dielectric constant of the waveguide body 104. (Ex. 1007, col. 4:66 to col. 5:2).

And:

Much of the energy absorbed by the plasma eventually appears as heat such that the bulb temperature may approach  $1000^{\circ}\text{C}$ . When the waveguide is also used as a heat sink, as previously described, the dimensions of the waveguide may change due to thermal expansion. If the waveguide expands, the microwave frequency that will resonate within the waveguide changes and resonance is lost. In order for resonance to be maintained, the waveguide must have at least one dimension equal to an integer multiple of the half-wavelength of the microwaves being generated by source 115. (Ex. 1007 col. 9:11-21).

39. Espiau's involved specification also describes that in order to receive the electric field maximum created by the resonance, the bulb must be specifically positioned in the waveguide to receive the maximum:

In DWIPLs 410, 420, 430, bulb cavities 415, 425, 435, respectively, and feeds 413, 423, and (433, 434), respectively, are preferably positioned with respect to waveguides 417, 427, 437, respectively, at locations where the electric fields are at an operation maximum. (Ex. 1007, col. 7:59-64).

Testing of the device

40. Bennett testified that the waveguide plasma lamp was coupled to a variable frequency RF generator and that Sandberg adjusted the frequency to light the bulb (Ex. 2186 ¶ 11).

41. Bennett also testified that he was surprised by the brightness of the light emitted by the plasma lamp and that he saw purple spots for days after the test (Id.).

42. Bennett testified that he has reviewed a photograph labeled Exhibit 2178 which he understands to be a photo taken in 2002 and that the light emitted by the lamp they tested in July 2000 looked the same as shown in the photo (Id. ¶ 12).

43. Nunes testified that during the testing of the device, he recalls Sandberg turned on the RF generator and adjusted the frequency to light the bulb and that the bulb shown as bright as the sun (Ex. 2199 ¶ 5).

44. Nunes declared that he has examined Exhibit 2178 and the plasma lamp shown in that photo is substantially the same as that he witnessed in operation in July 2000 (Id.).

45. Wilson testified that his best recollection was that during the week of July 17, 2000, the assembled waveguide plasma lamp was coupled to the Keltec

variable frequency RF generator and powered on to ignite a plasma in the bulb (Ex. 2181 ¶ 53).

46. C. Guthrie testified that Sandberg showed him an assembled ceramic waveguide resonator and that the lamp gave off a very bright light when powered on (Ex. 2180 ¶ 33).

47. C. Guthrie also testified that the part looked identical to that shown in Exhibit 2041 and the lighted lamp looked identical to a photo shown in Exhibit 2178 which was taken in 2002 (Id.).

48. None of Guthrie's declarants testified that the device operated during the week of 17 July 2000 operated in at least one resonant mode.

49. None of Guthrie's declarants testified that the device operated was tested to determine that the waveguide body resonated in at least one resonant mode having at least one electric field maximum.

50. None of Guthrie's declarants testified that the device was tested to determine if the bulb was ignited by receiving energy from the resonating waveguide body to *form a light-emitting plasma or creating a plasma* by interacting the resonant energy with the gas-fill.

51. During oral argument, counsel for Guthrie argued that it was most likely that the constructed waveguide resonated when tested, because that's what it was meant to do (Paper 254 at 27:11-17):

JUDGE MOORE: Let me recast this question then. Is it possible if I shove enough RF energy down the throat of this little thing, I can get that light to light regardless of whether or not it's a resonator?

MR. PISANO: I don't know. I – whether it will light first or melt, I don't know. And, and no one had the opportunity to do that test, but the most likely, the most likely thing is it resonated because

that's what it was meant to do.

Derivation

52. Guthrie alleges that Espiau derived the invention from Guthrie on 11 April 2000 (Paper 109 at 22).

53. On 11 April 2000 a meeting was held that included at least Turner, Espiau, Joshi, Wilson, Prior and Guthrie (Paper 109 at 20).

54. Inventor Prior testified that:

16. One purpose of the April 11 meeting at ITW was to introduce David Turner, his company Tenco and Betadot – Matt Espiau and Chan Joshi – to DRI and ITW. During DRI's presentation of its proposed loop-type plasma lamp design, Matt Espiau interrupted to suggest that a waveguide could be used to couple the bulb to the ceramic printed wiring board. I immediately told him that the DRI had already considered and dismissed the use of an air waveguide as too large to be practical in the plasma lamp application. I further told him that DRI had instead developed an embodiment in which a gas-fill or bulb was integrated into a ceramic waveguide configured as a resonator. (Ex. 2185 ¶ 16).

55. Inventor C. Guthrie testified that:

6. The purpose of the April 11 meeting at ITW was to introduce David Turner, his company Tenco and Betadot – Matt Espiau and Chan Joshi – to DRI and ITW and discuss the schedule for DRI's ceramic plasma lamp development project. Early on during that meeting, Matt Espiau suggested that a waveguide might be used between the bulb and the ceramic printed wiring board ("PWB"). I recall that Greg Prior immediately told Matt Espiau that the DRI had already developed a version of a ceramic waveguide, configured as a resonator, in which a gas fill or bulb was integrated into the ceramic block. (Ex. 2180 ¶ 6).

56. Inventor Wilson testified that:

25. One purpose of the April 11 meeting at ITW was to introduce David Turner, his company Tenco and its consultant Betadot – Matt Espiau and Chan Joshi – to DRI and ITW, and to discuss the schedule for DRI's ceramic plasma lamp, in which a ceramic bulb was coupled to RF electronics disposed on a ceramic printed wiring board ("ceramic PWB"). During the course of the meeting, Matt Espiau suggested that a waveguide structure could be used to couple the ceramic bulb to the ceramic PWB. Greg Prior immediately told him that the DRI had already considered and dismissed the use of an air waveguide as too large to be practical in the plasma lamp application, and instead had developed an embodiment in which a gas-fill or bulb was directly integrated into a ceramic waveguide configured as a resonator. As stated in paragraph 18 of my February 18, 2006 declaration, I suspect that the ceramic waveguide concept was transmitted to Tenco by Jim Legge, although I now appreciate that Greg Prior also may have mentioned it to Turner during a meeting I did not attend. (Ex. 2181 ¶ 25).

57. Guthrie relies on the testimonies of Cooper and Pothoven to corroborate the Guthrie inventors accounting of events that took place during the meeting.

58. However, according to Cooper, he was not present during the alleged communication of the invention and testified that:

10. After attending a short introductory session in the ITW conference room to discuss the schedule, and introduce the participants and their qualifications, I left the room to attend to other business. I returned to the conference room a short time later to find that the group had been taken for a tour of ITW's laboratory. I vividly recall being upset that the Tenco visitors were permitted to tour the ITW laboratory because they could have been exposed to a number of ITW's trade secret processes. Afterwards I instructed that the group not be permitted to leave the conference room area, and I continued to go in and out of the meeting as time and my other duties permitted.

11. After the April 11 meeting had concluded, and the Tenco people had departed, I recall discussing with Greg Prior and Don Wilson their



impressions of the Tenco people and their capability to assist on the ceramic bulb project. They reported to me that, based upon its discussion with Tenco in relation to the RF design, DRI had decided to advance development of a ceramic resonator concept that DRI had begun working on in late 1999. They described that at the meeting Matt Espiau had suggested using a waveguide to couple the ceramic bulb we were working on to the electronics, similar to the ceramic resonator concept I had previously discussed with them. Tenco suggested that using DRI's ceramic resonator design would simplify the RF electronics design. In addition, I understood that since DRI and ITW were already working on sapphire-to-ceramic sealing technology for the ceramic bulb, that technology could be readily applied to sealing a gas-filled cavity in the ceramic resonator design. (Exhibit 2184).

59. Pothoven testified that:

10. Once the meeting had reconvened in the conference room, Don Wilson and Charles Guthrie began explaining the version of the plasma lamp that was to be the focus of development over the next ten to twelve weeks. Shortly after beginning their presentation, Matt Espiau interrupted to suggest that a waveguide could be used to simplify the design.

11. Greg Prior immediately said that DRI had considered and rejected air waveguides, and instead had developed a ceramic-filled resonator plasma lamp design in which the gas-fill was located in a chamber in the ceramic. Greg Prior then sketched out that design for the Tenco people, which was the same design that I had previously discussed with Charles Guthrie and Don Wilson. I recall that it was agreed that the ceramic resonator design would simplify the design of the RF electronics and was favored by Tenco as the easiest design to implement.

60. During oral argument, counsel for Guthrie confirmed that in connection with its priority motion, Guthrie does not direct us to a picture, photo, or drawing of what was sketched by Prior as follows (Paper 254 at 5:6-15):

JUDGE LEE: No, well, that's not exactly what I'm asking for. You're saying that's essentially the same as this other one, but is there an exhibit where a declarant says, yes, that is the picture I drew on the board. I want a definitive thing of what he put on the board.

MR. PISANO: The closest we have is to what Mr., Mr. Prior drew on the board would be –

JUDGE LEE: So, there is no picture. Right?

MR. PISANO: There is no picture.

JUDGE LEE: I don't want anything close to it –

MR. PISANO: No, there's no picture.

61. During oral argument, counsel for Guthrie represented that when cross examined, none of Guthrie's witnesses recalled that the word resonator was spoken during the 11 April 2000 meeting as follows:

JUDGE LEE: So, so as I read the testimony, no one actually can confirm the declarations that the word, resonating or resonator was ever said, so –

MR. PISANO: That's right. (Paper 254 at 6:1-4).

And

MR. PISANO: No, the question -- oh well, that's, that's in Mr. Morgan's slide. The question is do you recall whether the word resonator was used seven years ago? And the answer was I don't recall whether the word resonator was used seven years ago.

JUDGE LEE: You point to one person, but it seems to me like five or six different people were all there. They all couldn't remember.

MR. PISANO: Well, Your Honor, I suppose that's just an artifact of human nature that not to remember precisely what words were used to describe this device seven years ago. If you asked me what I had said seven years in a conversation, not knowing at the time this was going to become a bone of contention later on, I probably wouldn't remember. (Paper 254 at 13:9-19).

#### **D. Analysis**

Guthrie as the junior party must demonstrate priority of invention by a preponderance of the evidence. Bd. R. 207(a)(2). Guthrie alleges that by the end of March 2000 it conceived of the invention, and on 11 April 2000 communicated its conception to Espiau, e.g., that Espiau derived the invention from Guthrie. Guthrie alleges that it actually reduced the invention to practice sometime during the week of July 17, 2000. Alternatively, Guthrie argues that any reduction to practice made by Espiau inures to Guthrie's benefit.

For the reasons that follow, Guthrie has failed to demonstrate priority of invention by a preponderance of the evidence.

#### **Reduction to practice**

Priority of invention belongs to the first party to reduce the invention to practice unless the other party can establish that it was the first to conceive the invention and that it exercised reasonable diligence in later reducing the invention to practice. *Eaton v. Evans*, 204 F.3d 1094, 1097 (Fed. Cir. 2000). To establish an actual reduction to practice, it must be established that (1) the party constructed an embodiment or performed a process that met every element of the count and (2) the embodiment or process operated for its intended purpose. *Id.* at 1097. There can be no actual reduction to practice if the constructed embodiment or performed process lacks an element recited in the count or uses an equivalent.

Count 1 is Guthrie claim 109 or Guthrie claim 129 or Espiau claim 1 or Espiau claim 32 (FF 9). In its brief, Guthrie seeks to demonstrate a prior actual reduction to practice with respect to Espiau claim 1 (Paper 109 at 17-19<sup>4</sup>).

Accordingly, the focus of our discussion is with respect to Espiau claim 1, which is as follows:

A lamp comprising:

(a) a waveguide having a body comprising a ceramic dielectric material of a preselected shape and preselected dimensions, the body having a first side determined by a first waveguide outer surface;

(b) a first microwave feed positioned within and in intimate contact with the waveguide body, adapted to couple microwave energy into the body from a microwave source having an output and an input and operating within a frequency range from about 0.5 to about 30 GHz at a preselected frequency and intensity, the feed connected to the source output, said frequency and intensity and said body shape and dimensions selected such that the body

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<sup>4</sup> Attached to Guthrie's brief is Appendix 3.2 styled "COMPARISON OF GUTHRIE'S REDUCTION TO PRACTICE TO THE COUNT" in which Guthrie compares its proofs with Espiau claim 1. That appendix contains arguments incorporated from Guthrie's priority motion in violation of Bd.R. 106(b)(3) and SO ¶ 106.2. Moreover, the claim chart is not the sort of claim chart that should be attached as an appendix to a motion as required by Bd.R. 121(e). A claim chart is not appropriate for presenting or incorporating arguments as Guthrie has done here. Guthrie's Appendix 3.2 goes beyond what is authorized by the rule, since it contains incorporated arguments. As stated per SO ¶ 106.2, incorporation of arguments by reference amounts to a self-help increase in the length of the brief and a pointless imposition on the Board's time. The Board declines to play archeologist with the record. *DeSilva v. DiLeonardi*, 181 F.3d 865, 866-867 (7<sup>th</sup> Cir. 1999). Thus, Guthrie's Appendix 3.2 has not been considered in rendering the decision.

resonates in at least one resonant mode having at least one electric field maximum;

(c) an enclosed first cavity depending from said first surface into the waveguide body; and

(d) a first bulb positioned in the cavity at a location corresponding to an electric field maximum during operation, the bulb containing a gas-fill which when receiving microwave energy from the resonating waveguide body forms a light-emitting plasma.

To establish an actual reduction to practice, it must be established that (1) the party constructed an embodiment or performed a process that met every element of the count and (2) the embodiment or process operated for its intended purpose. *Id.* at 1097. Guthrie has failed to satisfy either prong of the two prong requirement for the following reasons.

*Has Guthrie proved that it constructed an embodiment or performed a process that met every element of the count?*

Guthrie alleges that it completed construction and tested an embodiment within the scope of the count sometime during the week of 17 July 2000 (Paper 109 at 19), which is prior to Espiau's accorded benefit date of 31 July 2000 (FF 6). Guthrie does not direct us to a picture, drawing, or photo evidence of what was actually made and tested during the week of July 17, 2000. Rather, Guthrie relies on the testimonies of inventors Wilson (Ex. 2181) and C. Guthrie<sup>5</sup> (Ex. 2180), and noninventors Nunes (Ex. 2199), Bennett (Ex. 2186), and Gandhi (Ex. 2164) who describe what was constructed.

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<sup>5</sup> References to "C. Guthrie" are to the inventor Charles Guthrie. References to "Guthrie" are to the junior party in interference.

Guthrie alleges that in early July 2000, inventor Wilson contracted with Ceramic Tech., Inc. to make a few samples of a rectangular waveguide (Paper 109 at 16). Guthrie's declarants essentially testify the same (discussed in detail below) – that the part made was substantially the same as, or consistent with, that which is shown on page 2 of Exhibit 2137 and Exhibit 2048, and that the part looked substantially like that shown in Exhibit 2041 (FFs 23, 25, 26, 28, and 30-32).

Page 2 of Exhibit 2137 is said to be a sketch that was submitted to another company (Coorstek) in connection with a quotation (FF 33). Exhibit 2041 is said to be a photograph of a half wavelength waveguide, a waveguide that is said to have been delivered to Guthrie after the critical July 30, 2000 date (FF 34). Exhibit 2048 is said to be a drawing made by C. Guthrie of a half-wavelength resonator ceramic part (FF 35).

Gandhi, a sales manager at Ceramic Tech., Inc. recalls that “the ceramic parts that CeramicTech machined in the first few weeks of July 2000 looked substantially like the part shown in Exhibit 2041” (FF 26). Gandhi explained that the “only difference that I see is that the part in Exhibit 2041 appears to have a coating, whereas the parts machined by Ceramic Tech were bare alumina” (FF 27).

Gandhi further testified that the overall dimension of the parts shown on page 2 of Exhibit 2137 and drawing labeled “CTS010” (Ex. 2048) are consistent with his recollection of the size of the part that Ceramic Tech made for DRI in July 2000 (FF 28). Wilson testified that Ceramic Tech made a small number of half wavelength waveguides using “substantially the same dimensions” set forth on the second page of 2137 (FF 23) and that the parts looked like the part shown in Exhibit 2041 (FF 25).

Bennett testified that Wilson had a small number of waveguides “substantially as shown in Exhibit 2137 (sketch #2)” made in early July 2000 (FF 30).

Nunes testified that the waveguide tested was like that shown in Exhibit 2041 (FF 31) and that the dimensions for the part shown in Exhibit 2048 are consistent with his recollection of the size of the part that was tested (FF 32).

Guthrie relies on the testimony of Dr. Gupta who was said to have examined a device constructed in accordance with page 2 of Exhibit 2137, and as depicted in 2041 (“the Sample”) and confirmed by calculations that the device (“the Sample”) is a waveguide resonator and when assembled with a DRI bulb constitutes a physical embodiment of the invention of the Count (Paper 109 at 17; FFs 36-37).

It is reiterated that Guthrie does not submit into evidence a picture, drawing, or sketch of the constructed device. Rather, Guthrie relies on the testimonies of witnesses who essentially testify the same - that the part made in July 2000 was substantially the same as, or consistent with, a photo and/or engineering drawing(s) shown to them. Dr. Gupta examined the photo and engineering drawing(s) that were shown to the witnesses and a device allegedly constructed in accordance with the photo and/or engineering drawing(s) and concluded that the device met the limitations of the count.

However, Dr. Gupta’s testimony is not particularly helpful, since based on the record, we do not know that the device actually constructed in July 2000 was the same as one that was made based on Exhibit 2041 and Exhibit 2137 (e.g., “the Sample”). Dr. Gupta was not there and none of Guthrie’s witnesses testify as to the actual dimensions of the device constructed in July 2000.

With respect to the photo depicted in Exhibit 2041, we do not know if dimensions are accounted for; the declarants do not say. Rather, the declarants make statements such as that the dimensions shown in a sketch, a sketch that was not used to make the waveguide (FF 29), are “consistent with” the dimensions they recall; or that the dimensions shown in a sketch are “substantially the same” as the dimensions of the waveguide that was tested.

That a person recalls that the dimensions of something he or she saw some years ago are consistent with or have substantially the same dimensions as something else that is presently before them does not tell us much that is meaningful in the context of the count. The terms “consistent with” and “substantially the same as” are subjective and the declarants do not reveal the standard of measure by which they characterize a photo, picture, or drawing as “consistent with” and “substantially the same as” a mental image they may have of something they saw years ago. We do not know what each declarant has in mind when stating “consistent with” and “substantially the same.” It is uncertain what differences are considered unimportant or trivial and thus ignored. The testimony deserves credit only to the extent that the declarants saw something generally similar in appearance to what is shown in the photo, picture, or drawing. The testimony is not sufficiently specific to be of significance in determining precisely the size and configuration of what the declarants had seen in the context of knowing whether a bulb was positioned in a cavity at a location corresponding to an electric field maximum, and that the waveguide was shaped and dimensioned to resonate in at least one resonant mode having at least one electric field maximum as required by the count.

What one person thinks is substantially the same as something else, another



person may not. A paper that measures  $8.4 \times 10.9$  may be consistent with or substantially the same as a paper that measures  $8.5 \times 11$ , but so may a paper measuring  $8 \times 10$ . That determination is subjective and is in the eye of the beholder. Based on the record we do not know what the witnesses consider to be “substantially the same as” or what is considered to be “consistent with” a set of specific dimensions.

This point is critical, since Espiau claim 1, an alternative of the count, requires that the waveguide be dimensioned “such that the body resonates in at least one resonant mode having at least one electric field maximum” and such that the bulb is positioned in a waveguide cavity at a location corresponding to the electric field maximum during operation. Not all waveguides resonate<sup>6</sup>. A ceramic waveguide must be specifically dimensioned in coordination with the dielectric constant of the material used and the particular frequency that is applied to the ceramic waveguide in order for the waveguide to resonate and maintain resonance (FF 38). Moreover, the placement of the bulb is critical for receiving the electric field maximum created by the resonance (FF 39).

Guthrie has not demonstrated by a preponderance of the evidence that the waveguide that was built and tested during the week of 17 July 2000 - one that had dimensions consistent with or substantially the same as those seen in Exhibit 2137 or Exhibit 2048, whatever dimensions those may be - resulted in a waveguide that would resonate at a specific given frequency with a cavity for a bulb positioned at a location corresponding to an electric field maximum. Based on the evidence that Guthrie has directed us to, we do not know what the dimensions were of the

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<sup>6</sup> U.S. Patent 6,351,070, issued to Jonathan Barry (“Barry”), describes a non-resonant waveguide 4 coupled to a microwave source 2, to generate a plasma in the

waveguide that was allegedly tested or whether the waveguide cavity for the bulb was positioned to correspond to an electric field maximum. There is insufficient factual basis to support the assertions made by Guthrie through its declarants and therefore, the testimonies of Gandhi, Nunes, Bennett, C. Guthrie and Wilson are accorded little weight. *See Rohm and Haas Co. v. Brotech Corp.*, 127 F.3d 1089, 1092 (Fed. Cir. 1997) (nothing in the Federal Rules of Evidence requires the finder of fact to credit the unsupported assertions of an expert witness).

For all of these reasons, Guthrie has failed to demonstrate by a preponderance of the evidence that it constructed an embodiment that met every element of the count.

*Has Guthrie proved the embodiment worked for its intended purpose?*

No measurements were taken or tests ran to determine if the constructed waveguide that was lit during the week of 17 July 2000 actually resonated, that the bulb formed a light-emitting plasma or that the bulb was positioned at a position according to an electric field maximum created by the waveguide, all required by Espiau claim 1, the alternative of the count that Guthrie seeks to prove. Although witnesses testified that a frequency was applied to the waveguide and that the bulb lit was quite bright (FFs 40-45), the evidence does not foreclose other reasonable explanations of the supposed events that took place. In other words, Guthrie has not directed us to evidence that would support the assertions it makes – that the waveguide that was lit *had to resonate* in order to light the bulb and that the bulb *had to form a plasma* if it were ignited. Such a premise appears to be based on Guthrie's argument that the constructed device was dimensioned and constructed

to be a resonator. But as stated above, Guthrie has failed to demonstrate that what was built was a resonator waveguide, e.g., was dimensioned to resonate.

Even if the constructed device was dimensioned to resonate at the appropriate frequency, which we have determined Guthrie has not so demonstrated, something more is required for Guthrie to demonstrate that the tested device worked for its intended purpose. Importantly, Guthrie has not demonstrated that the constructed device actually resonated when operated or that a plasma was formed. As stated earlier in this proceeding, it is not enough that a constructed device is able to operate in a state of at least one resonant mode, the count requires that the device actually be in a state of at least one resonant mode (FF 18). The count requirement goes hand in hand with the legal requirement that the device tested operate for its intended purpose. The intended purpose of the count is for the waveguide to resonate, which in turn forms a plasma and lights a bulb. Based on the record, Guthrie has not demonstrated that the constructed waveguide resonated or that a plasma was formed.

During oral argument, counsel for Guthrie argued that it was most likely that the constructed waveguide resonated when tested, because that's what it was meant to do (FF 51). In lies the problem. Guthrie has not directed us to evidence to rule out other possibilities as to how the bulb was lit. Could the bulb have been lit if the waveguide did not resonate? Could the bulb have been lit without forming a plasma? We do not know the answers to these important questions. Guthrie seems to approach the issue by suggesting that it is all common sense or well within the skilled artisan to understand that if the device was constructed to resonate – it must have resonated since the bulb was lit.

However, our reviewing court has told us, that in a contested case, Board members are not experts and that we should not resort to our own understandings or common sense, where no record evidence is available. To the extent that Guthrie is relying on Board members as persons of ordinary skill in the art such that we should recognize or assume based on common sense that the waveguide assembly must have resonated when operated and that the bulb must have formed a plasma, that argument is rejected.

Board members are not presumed to be persons of ordinary skill in the art and cannot rely on their own experiences or knowledge to fill in where record evidence is lacking. *See Fromson v. Anitec Printing Plates, Inc.*, 132 F.3d 1437, 1448 (Fed. Cir. 1997) (Mayer, C.J., concurring – what follows is a quote) (I “know” what anodization means from my own undergraduate studies and experiments; the concept is not difficult and I need no further education to grasp it. I happen to have a dictionary in my chambers from the era pertinent here, which would confirm my “knowledge” about anodization. ... But, I am neither an expert in the field nor one of ordinary skill in the art despite how much I think I “know” about a process I once studied. Nor do my colleagues on this court or the district court possess such expertise, and even if they did, they would have to defer to the record made in the case.) *See also Compagnie de St. Gobain v. Brenner*, 386 F.2d 985 (D.C. Cir. 1967) (Examiner is not expert; rather examiner performs quasi-judicial function based on record before PTO); *In re Zurko*, 258 F.3d 1379, 1385-86 (Fed. Cir. 2001) (“As an administrative tribunal, the Board clearly has expertise in the subject matter over which it exercises jurisdiction. This expertise may provide sufficient support for conclusions as to peripheral issues. With respect to core factual findings in a determination of patentability, however, the board cannot

simply reach conclusions based on its own understanding or experience - or on its assessment of what would be basic knowledge or common sense. Rather, the Board must point to some concrete evidence in the record in support of these findings.”); and *Brand v. Miller*, 487 F.3d 862, 869 (Fed. Cir. 2007) (“We therefore hold that, in the context of a contested case, it is impermissible for the Board to base its factual findings on its expertise, rather than on evidence in the record ...”).

Our decision must be made on the basis of the record that was created by Guthrie. If the evidence fails to persuade, as is the case here, then the showing is inadequate and cannot be supplemented based on our own understandings or common sense.

Lastly, none of the witnesses testify that the source operated within any particular frequency range (FFs 40, 43, and 45). Espiau claim 1 requires that the microwave source operate within a frequency range from about 0.5 to about 30 GHz. Guthrie has failed to sufficiently demonstrate that the actual source applied to the waveguide operated within that frequency range.

For all of these reasons, Guthrie has failed to demonstrate a prior reduction to practice.

#### Derivation

Guthrie alleges that Espiau derived the invention from it. To prove derivation, a party must establish conception of the claimed subject matter and communication of the conception to the opponent. *Price v. Symsek*, 988 F.2d 1187, 1190 (Fed. Cir. 1993). As with conception, corroboration is required to support testimony of the communication. *Id.* at 1196. *See also Davis v. Reddy*, 620 F.2d 885, 889 (CCPA 1980).

Because Guthrie has failed to sufficiently demonstrate communication of a conception to Espiau, for purposes of this decision, we shall assume without deciding that Guthrie has demonstrated conception of the count by 31 March 2000.

According to Guthrie's priority motion, Digital Reflection, Inc. (DRI)<sup>7</sup> was in the business of making projection television systems. In late 1999, DRI was pursuing various alternatives for light sources for its projection television system. In that pursuit, DRI sought to retain Turner Engineering Co. (Tenco), owned by David Turner, to develop and provide a plasma lamp package (Paper 109 at 1-2). DRI signed an Engineering Services Agreement with Tenco on 4 April 2000 (GFF 61). The Tenco team included at least David Turner, M. Espiau<sup>8</sup> and Joshi. An initial meeting with at least Tenco personnel Turner, M. Espiau, and Joshi and DRI personnel Wilson, Prior and C. Guthrie was held on 11 April 2000 (FF 50). It was during that meeting that Guthrie alleges that it communicated conception of the invention of the count to Espiau (Paper 109 at 22).

Per Guthrie's priority motion, during the 11 April 2000 meeting, C. Guthrie and Wilson presented to the group an overview regarding their loop-type plasma lamp<sup>9</sup>. M. Espiau was said to have interrupted the discussion to suggest that a

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<sup>7</sup> DRI was the initial assignee of the involved Guthrie application. DRI went bankrupt, after which, C. Guthrie and Wilson, two of the Guthrie inventors acquired title to the involved Guthrie application. They then assigned the application to Ceravision, the real party in interest (GFFs 1-4).

<sup>8</sup> References to "M. Espiau" are to the inventor Frederick M. Espiau. References to "Espiau" are to the senior party in interference.

<sup>9</sup> The loop-type RF-driven light source comprises an RF-driven loop disposed around a gas-filled quartz bulb source to deposit energy into the bulb to form a

waveguide structure could be used to couple the ceramic bulb to a ceramic printed wiring board (PWB). Prior allegedly informed M. Espiau that DRI had already considered and rejected the use of an air waveguide as impractical, and instead had conceived of an embodiment in which a gas-fill or bulb was directly integrated into a ceramic waveguide configured as a resonator. Prior then was said to have sketched the ceramic waveguide resonator design, including a ceramic block having a gas cavity located near one end and an RF antenna inserted near the other end (Paper 109 at 21:8-17).

Guthrie does not direct us to a picture, photo, or drawing of what was sketched by Prior (FF 60). No corroborating witness testified as to the specifics of what was sketched by Prior. Guthrie relies on the testimony of witnesses who describe what happened at the 11 April 2000 meeting. Particularly, Guthrie relies on the testimonies of inventors Wilson (Ex. 2181), Guthrie (Ex. 2180), and Prior (Ex. 2185), and non inventors Pothoven (Ex. 2185), and Cooper (Ex. 2184).

In order to prove communication of a conception, the moving party must provide corroborating evidence of the communication. Guthrie relies on the testimonies of Cooper and Pothoven to corroborate the communication. Cooper was not there when the alleged communication of the conception took place. Cooper's recollection is based on what inventors Prior and Wilson told him (FF 58). Such second hand accounting of events must be considered when ascertaining the weight to be given such testimony.

Moreover, Cooper's testimony does not demonstrate that every element of the count was conveyed to Espiau.

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plasma (GFF 14).

Cooper testified as follows:

11. After the April 11 meeting had concluded, and the Tenco people had departed, I recall discussing with Greg Prior and Don Wilson their impressions of the Tenco people and their capability to assist on the ceramic bulb project. They reported to me that, based upon its discussion with Tenco in relation to the RF design, DRI had decided to advance development of a ceramic resonator concept that DRI had begun working on in late 1999. They described that at the meeting Matt Espiau had suggested using a waveguide to couple the ceramic bulb we were working on to the electronics, similar to the ceramic resonator concept I had previously discussed with them. Tenco suggested that using DRI's ceramic resonator design would simplify the RF electronics design. In addition, I understood that since DRI and ITW were already working on sapphire-to-ceramic sealing technology for the ceramic bulb, that technology could be readily applied to sealing a gas-filled cavity in the ceramic resonator design. (Exhibit 2184).

From the above, it is not apparent that DRI's decision to "advance development of a ceramic resonator concept" was made during the meeting, e.g., in the presence of the Espiau inventors. The statement could mean that DRI's decision to "advance development of a ceramic resonator concept" was made during the meeting or after the meeting. If the decision was made during the meeting, pursuing a "ceramic resonator concept" does not tell us much, and certainly does not convey that Guthrie communicated the conception, e.g., every element of the count to Espiau. *See* FFs 9-13 for a listing of the specific elements of each alternative of the count.

Cooper's testimony that Tenco suggested using DRI's "ceramic resonator design" since it would simplify the RF electronics design, also does not sufficiently demonstrate that all of the elements of the count were conveyed to Espiau. *See* FFs



9-13 for a listing of the specific elements of each alternative of the count. Lastly, Cooper's statement that Matt Espiau had suggested using a waveguide to couple a ceramic bulb to the electronics, similar to the ceramic resonator concept Cooper had previously discussed with Wilson and Prior is also not specific enough to support the assertion made. Again, we emphasize that Cooper was not there and his testimony is based on second hand knowledge of what was said. In any event, based on his testimony, the statement does not demonstrate that every element of the count was communicated during the meeting. Cooper testified that there was some discussion regarding a device "similar to the ceramic resonator concept." That statement does not demonstrate that every element of the count was communicated. *See* FFs 9-13 for a listing of the specific elements of each alternative of the count. Even if the term "ceramic resonator concept" were somehow to convey each element of the count, which we determine it does not, we do not know what Cooper means when he says that what was discussed was "similar to" that concept. How is what was discussed similar to the concept? No comparison has been explained or made between what was discussed and the "ceramic resonator concept."

For all of these reasons, we have determined that Cooper's testimony is based on unsupported assertions, to which we accord little or no weight. *See Rohm and Haas Co. v. Brotech Corp.*, 127 F.3d 1089, 1092 (Fed. Cir. 1997) (nothing in the Federal Rules of Evidence requires the finder of fact to credit the unsupported assertions of an expert witness).

Unlike Cooper, Pothoven was there when the alleged communication occurred. Pothoven testified that he is a Director of Ceravision, Guthrie's real party in interest and is therefore an interested party. When an interested party

testifies to corroborate facts, the credibility of the interested party must be considered. *Lacks Industries, Inc. v. McKechnie Vehicle Components USA, Inc.*, 322 F.3d 1335, 1350 (Fed. Cir. 2003) (“[There is] a clear requirement that such oral testimony by interested parties must be corroborated by documentary testimony.”); and *Checkpoint Systems Inc. v. All-Tag Security S.A.*, 412 F.3d 1331, 1339 (Fed. Cir. 2005) (“Physical, documentary, or circumstantial evidence, or reliable testimony from individuals other than the alleged inventor or an interested party, may corroborate.”).

Notwithstanding the fact that Pothoven is an interested party, his testimony does not save the day for Guthrie. Pothoven testified that during the 11 April 2000 meeting, Prior explained that DRI had developed a ceramic-filled resonator plasma lamp design in which the gas-fill was located in a chamber in the ceramic. Pothoven further testified that Prior then sketched out “that design” which was the same design that Prior had previously discussed with Guthrie and Wilson (FF 59).

The sketch is not available and no one testifies as to the specifics of what the sketch showed<sup>10</sup>. To corroborate the assertions made regarding what the sketch conveyed, Guthrie directs attention to Pothoven’s testimony. However, Pothoven only testified that the sketch showed the same design that Prior had previously discussed with Guthrie and Wilson (FF 59). We do not know and will not speculate what Pothoven means when he says that the design sketched was the same design that was previously discussed. What was previously discussed? And

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<sup>10</sup> Although Guthrie directs attention to paragraph 16 of Prior’s declaration (Paper 109 at 21:14-16 and GFF 71) to support the assertion that Prior made the sketch, Paragraph 16 of Prior’s testimony makes no mention of a sketch.

how was the something that was previously discussed conveyed through the sketch allegedly made by Prior?

Pothoven also testified that during the meeting, and before Prior made the sketch, Prior announced that DRI had developed a ceramic-filled resonator<sup>11</sup> plasma lamp design in which a gas-fill was located in a chamber in ceramic. Guthrie does not explain how Pothoven's testimony to this point conveys that each element of the count was communicated to Espiau as required. Guthrie does not compare the elements of any alternative of the count to its evidence for purposes of demonstrating communication of the conception. Each of the apparatus alternatives of the count requires a feed positioned within and in intimate contact with the waveguide body and connected to a source output. Each of the method alternatives of the count require coupling energy characterized by a frequency and intensity into a waveguide body (FFs 9-13). Pothoven does not testify, for example, that there was a discussion of any source of power, let alone how such a source of power would be connected to the waveguide as required by the count. Pothoven does not mention a source at all.

Since we do not have a copy of the sketch or testimony as to the specifics of what was sketched, and since no one recalls the specifics of what was communicated to establish that every element of the count was communicated, Guthrie has failed to demonstrate by a preponderance of the evidence that Espiau derived the invention from Guthrie.

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<sup>11</sup> Whether Prior actually ever mentioned the word resonator is apparently contested. During oral argument, counsel for Guthrie represented that when cross examined, none of Guthrie's witnesses recalled that the word resonator was ever spoken during the 11 April 2000 meeting (FF 61).

Lastly, we address Guthrie's argument that Espiau's alleged conception, just three days after the 11 April 2000 meeting is strong circumstantial evidence that Espiau copied or stole the invention from Guthrie (Paper 109 at 22). What went on during the meeting has not been sufficiently established by Guthrie. Guthrie has failed to prove by a preponderance of the evidence that the conception was communicated during the 11 April 2000 meeting. That Espiau alleges a conception date of 14 April 2000 is not necessarily suspect. Other explanations, besides that Espiau derived the invention from Guthrie are equally plausible.

For all of these reasons, Guthrie has failed to sufficiently demonstrate that Espiau derived the invention from Guthrie.

#### Inurement

Guthrie argues that any actual or constructive reduction to practice achieved by Espiau was in furtherance of the work contracted for and funded by DRI, and inures to DRI's benefit (Paper 109 at 28).

"Inurement involves a claim by an inventor that, as a matter of law, the acts of another person should accrue to the benefit of the inventor." *Cooper v. Goldfarb*, 154 F3d 1321, 1331 (Fed. Cir. 1998). To establish inurement, the inventor must show, among other things that the other person was working either explicitly or implicitly at the inventor's request. *Id.* at 1332. Inurement focuses on the nature of the relationship between the inventor and the other party. *Id.*

Moreover, there are three other requirements that must be met to establish inurement: 1) the inventor must have conceived of the invention; (2) the inventor must have had an expectation that the embodiment tested would work for the intended purpose of the invention; (3) the inventor must have submitted the

embodiment for testing for the intended purpose of the invention. *Genetech Inc. v. Chiron Corp.*, 220 F.3d 1345, 1354 (Fed. Cir. 2000).

Because Guthrie has failed to sufficiently demonstrate that the work done by Espiau towards Espiau's reduction to practice (actual or constructive) was for the Guthrie inventors, for purposes of this decision, we assume without deciding that Guthrie has demonstrated conception of the count by 31 March 2000.

According to Guthrie, from 10 April 2000 to mid-July 2000, C. Guthrie and Wilson (DRI folks) met on a weekly basis with M. Espiau, Joshi and Chang (Tenco/Betadot folks) to identify materials for testing, defining additional features of the plasma design and specifying dimensions for waveguide resonators to be used in obtaining quotes from ceramic vendors (Paper 109 at 24:22 to 25:3). Thereafter communications broke down between the Guthrie (DRI) folks and the Espiau (Tenco/Betadot) folks, and apparently unbeknownst to Guthrie, Espiau (Tenco/Betadot) filed their 31 July 2000 provisional application, for which they were granted priority benefit in this interference (Paper 109 at 26:12 to 27:1).

Guthrie argues that Espiau's provisional application should inure to Guthrie's benefit, since the application was in furtherance of the work contracted for and funded by DRI (Paper 109 at 28). Inurement requires direction from the inventors, either explicitly or implicitly, to another party to take some action towards reducing the invention to practice. Guthrie has not directed us to evidence that demonstrates that Espiau filed its provisional application at the direction of the Guthrie inventors or even DRI. Based on the record, relationships broke down. Espiau, believing that it was the inventive entity of the subject matter of the count, filed its provisional application. Espiau did so not as a result of DRI or Guthrie's direction, but on its own accord. The Espiau provisional application names only

Turner, Chang, Joshi and M. Espiau as the inventors. Noticeably absent are any of the Guthrie inventors. The Espiau provisional application does not name DRI as the assignee (Ex. 1012). For these reasons, Guthrie has failed to establish by a preponderance of the evidence that Espiau's constructive reduction to practice inures to Guthrie's benefit.

Guthrie also argues that Espiau's actual reduction to practice inures to Guthrie. When Guthrie filed its priority motion, Guthrie did not know upon which specific arguments and proofs Espiau would rely. Guthrie could not have known, since Espiau's priority motion was not due until after Guthrie filed its priority motion. Yet, in its motion we understand Guthrie to argue that whatever Espiau alleges or argues for its actual reduction to practice in Espiau's yet to be filed motion, inures to Guthrie's benefit (Paper 109 at 28).

Guthrie as the junior party in this interference must demonstrate by a preponderance of the evidence priority of invention. Until that happens, there is no occasion to consider Espiau's priority motion. Guthrie cannot rely on another party's motion to meet its burden. Moreover, ¶ 106.2 of the Standing Order prohibits a moving party from incorporating arguments from one paper into another:

"Incorporation of arguments by reference amounts to a self-help increase in the length of the brief and a pointless imposition on the Board's time. Each motion, opposition, and reply must make all arguments accessible to readers, rather than ask them to play archeologist with the record. *DeSilva v. DiLeonardi*, 181 F.3d 865, 866-67 (7th Cir 1999).

For this reason alone, Guthrie's actual reduction to practice inurement argument is not considered.

Furthermore, Guthrie has not directed us to evidence that demonstrates that Espiau actually reduced to practice the invention for Guthrie or DRI. As stated above, the relationship between Guthrie (DRI) and Espiau (Tenco/Betadot) disintegrated. Whatever Espiau did after the relationship broke apart was not accomplished per Guthrie's or DRI's direction, but accomplished on its own accord. Guthrie has failed to demonstrate otherwise.

For all of these reasons, Guthrie has failed to demonstrate that Espiau's actual reduction to practice, whatever that may be, inures to Guthrie's benefit.

Guthrie's arguments that Espiau's real party in interest was required to assign to DRI rights to any invention arising from the work performed per a contractual agreement made between DRI and Tenco (Paper 109 at 23:6-9) is of no moment to the priority issue of inurement. The Board decides priority disputes not contractual ones. To the extent that Guthrie believes that Tenco and or the Espiau inventors breached a contractual agreement made with DRI, Guthrie has a remedy per a civil action to pursue breach of contract.

In Guthrie's portion of its brief styled "**F. Espiau's Efforts To Distort The Record Should Be Rejected**" Guthrie argues that Exhibits 2034 and 1107<sup>12</sup> should be excluded and that Exhibit 2181 be accorded full credit (Paper 109 at 29-30). A party seeking to exclude an exhibit must do so per a separate, miscellaneous motion. *See* SO ¶¶ 151 and 155.2. Guthrie filed a separate motion moving to exclude, among other evidence, Exhibits 2034 and 1107 (Paper 230). Guthrie's motion to exclude is addressed below.

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<sup>12</sup> Guthrie argues that 1007 should be excluded, but we understand Guthrie to mean 1107.

Guthrie fails to articulate what it means when it states that the Board should accord Exhibit 2181 “full credit.” Does Guthrie mean that the Board should ignore any prior statements made by Wilson that would contradict any statements made by his declaration set forth in Exhibit 2181? Or does Guthrie mean something beyond that - that the statements made in 2181 be accepted as established facts? We do not know and will not guess. Since Guthrie has failed to articulate a basis for which relief can be granted, Guthrie’s request with respect to Exhibit 2181 is denied.

For all of the above stated reasons, Guthrie’s priority motion 7 fails to demonstrate, by a preponderance of the evidence, priority of invention and fails to set forth a prima facie entitlement to the relief requested. Accordingly, Espiau Opposition 7 (Paper 220), Guthrie Reply 7 (Paper 225), Espiau Substitute Motion 7 for Priority (Paper 118), Guthrie Opposition 7 (Paper 221), and Espiau Reply 7 (Paper 224) need not and have not been reached.

Guthrie Priority Motion 7 is DENIED.

#### Miscellaneous Motions

Guthrie filed a miscellaneous motion to exclude certain evidence (Paper 230). The voluminous evidence identified in sections A, B, D, E and F of Guthrie’s motion that Guthrie seeks to suppress was relied on by Espiau in support of Espiau’s Priority Motion 7 (Paper 118), Espiau’s Opposition 7 to Guthrie’s Priority Motion 7 (Paper 220), and Espiau’s Reply Motion 7 (Paper 224). Since Guthrie failed to sufficiently demonstrate priority of invention by a preponderance of the evidence there was no occasion to reach Espiau’s priority brief, Espiau’s opposition, or Espiau’s reply or the evidence identified in sections A, B, D, E and F of Guthrie’s motion.



Guthrie also seeks to exclude Exhibit 2035 which, although Guthrie submitted it into evidence, was only apparently relied on in support of Espiau's papers. Since Guthrie failed to sufficiently demonstrate priority of invention by a preponderance of the evidence there was no occasion to reach Espiau's papers or Exhibit 2035.

Guthrie seeks to exclude Exhibit 1107, Exhibit 2034, and Exhibit 2136, which were apparently relied on in support of Espiau's papers and were also relied on in Guthrie's priority motion. As stated above, Espiau's papers were not considered since Guthrie failed to make its case. Moreover, because Guthrie relies on Exhibits 1107, 2034 and 2136 in support of its own motion, Guthrie's request to exclude Exhibits 1107, 2034 and 2136 is dismissed.

Guthrie motion 8 (to exclude evidence) is DISMISSED.

Espiau also filed a miscellaneous motion to exclude Exhibits 2244, 2240 and 2242 and portions of Guthrie's Reply 7 that relies on Exhibit 2244 (Paper 233). Exhibits 2240, 2242, and 2244 were relied on in connection with Guthrie reply. Since Guthrie failed to sufficiently demonstrate priority of invention by a preponderance of the evidence there was no occasion to reach Guthrie's Reply 7 or Exhibits 2240, 2242, and 2244.

Espiau miscellaneous motion 8 is DISMISSED.

#### **F. Order**

For the reasons given, it is

**ORDERED** that "GUTHRIE PRIORITY MOTION 7" is DENIED;

**FURTHER ORDERED** that "SUBSTITUTE ESPIAU MOTION 7 FOR PRIORITY" is DISMISSED;

**FURTHER ORDERED** that “GUTHRIE MOTION 8 (To Exclude Evidence)” is DISMISSED; and

**FURTHER ORDERED** that “ESPIAU MISCELLANEOUS MOTION 8” is DISMISSED.

/Jameson Lee/ )  
JAMESON LEE )  
Administrative Patent Judge )

/Sally C. Medley / ) BOARD OF PATENT  
SALLY C. MEDLEY ) APPEALS AND  
Administrative Patent Judge ) INTERFERENCES

/James T. Moore/ )  
JAMES T. MOORE )  
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